

IN THE SPECIFICATION

[0001] The present application ~~is a continuation claims the benefit of~~ U.S. Application No. 10/464,082 filed on June 17, 2003, which is a continuation of U.S. Application No. 10/354,565 filed on January 30, 2003, which is a continuation of U.S. Application 09/658,758 filed on September 8, 2000, now U.S. Patent 6,568,848, which claims the benefit of U.S. Provisional Application 60/155,369 filed on September 20, 1999, the disclosures all of which are incorporated by reference herein in their entirety.

[0012] In operation, a user may select a type of meat to be cooked and a taste preference directed to how well-done the meat should be cooked (i.e. rare, medium rare, medium, well-done, etc.). The user will then enter this information into the programmable thermometer timer unit using entry keys. The particular selection made by the user will be displayed on the display screen of the timer unit. The display screen may be a light-emitting diode display or a liquid crystal display. The display screen may also incorporate other technologies that are able to show the user information entered into the timer unit. The user will then place the remote monitoring unit in the vicinity of the meat being cooked. The user will then insert the one or more temperature measuring probes into the meat. As mentioned above, the remote monitoring unit will continuously measure the internal temperature of the meat and transmit this data to the timer unit, such as by using radio frequency signals or a communications cable connecting the remote unit to the programmable timer unit. The user will then press a start button on the programmable thermometer timer unit to start the monitoring operation. During cooking of the meat, the display screen of the timer unit may continuously display cooking information, such as the type of meat being cooked, the taste preference (i.e., well-done), the temperature of the meat and the time remaining until the meat is fully cooked, in accordance with the user's selected taste preferences. The programmable

thermometer timer unit may include a clip or fastener so that the unit may be carried on the body of the operator. This feature allows a user to continuously monitor the progress of the cooking operation while engaging in other activities. The timer unit may also include one or more supporting elements for enabling the timer unit to be placed on a support structure, such as a table, and stand in an upright position. The timer unit may also include a noise generating element, such as a beeper, that provides audio signals to a user during critical times of the cooking operation. The timer unit may also include a visual alarm, such as a light-emitting diode.

[0019.1] Figure 8 shows a side view of a programmable thermometer timer unit or second unit including a clip for carrying the unit on the body of an operator, in accordance with certain preferred embodiments of the present invention.

[0020] Figure 1 shows a perspective view of a programmable thermometer timer system 10, in accordance with certain preferred embodiments of the present invention. The system 10 includes a first unit 18 and a second unit or programmable thermometer timer unit 12, having display screen 14, and data entry keys 16. The second unit 12 includes one or more microprocessors for operating temperature control programs for cooking meat to preferred temperatures. The data entry keys 16 are used by an operator to enter cooking-related information into the timer unit, such as the type of meat being cooked and taste preferences (i.e., well-done).

[0027] Referring back to Figure 1, temperature probe 22 is made of a substantially rigid material such as stainless steel. Temperature probe 22 includes a distal end including a pointed end 50 and a proximal end 52 connected to communication line 24. Communication line 24 is substantially flexible so that temperature probe 22 may be positioned at various orientations relative to first remote unit 18. Substantially rigid temperature probe 22 includes a substantially straight section 54 extending from distal end 48 and a curved section 56

extending between the straight section 54 and proximal end 52 of probe 22. Flexible communication line 24 includes a first end attached to the proximal end 52 of temperature probe 22. Communication line 24 also includes a plug 58 having a male end 60 insertable into a communication jack 62, preferably accessible at an exterior surface of first unit 18. In operation, plug 58 is inserted into jack 62 of first unit 18 so that temperature readings may be transmitted between substantially rigid probe 22 and first unit 18. Preferably, the pointed end 50 at distal end 48 of substantially rigid probe 22 is inserted into a food item such as meat, for temperature monitoring. The substantially straight section 54 of rigid probe 22 may be oriented at a plurality of orientation relative to first unit 18 due to the flexibility of communication line 24.

[0028] Figure 7 shows a schematic view of the wireless remote cooking thermometer system of the present invention. First unit 18 includes a radio transmitter 64 for transmitting temperature reading obtained by substantially rigid probe 22. The temperature reading obtained by probe 22 ~~are~~ is passed through substantially flexible communication line 24 and onto radio transmitter 64. The temperature signals are then transmitted to second unit 12. Second unit 12 includes a radio receiver 66 that is adapted to receive the temperature readings transmitted by radio transmitter 64. Second unit 12 also includes a microprocessor 68 capable of calibration for taste preferences, a timer unit 70 for timing a cooking operation, and a noise-generating unit 72 for generating audible signals.

[0028.1] Figure 8 shows a side view of second unit 12' including a clip 26' for securing the unit 12' to the body of a user during operation of the system. In certain preferred embodiments, the clip may be hooked around a belt worn by a user. In other embodiments, the clip may be hooked to a user's clothes such as a pocket of a shirt or a pants pocket. The clip desirably enables a user to securely carry the second unit on the body while keeping the hands free for other activities.